

Zero Beat

Hampden County Radio Association, Inc.

Our 43rd ARRL affiliated year
Special Service Club

9-90

Serving Greater Springfield, MA

Remarks From The President...

Hi! I want to say a warm hello to all of the members of the Hampden County Radio Association. The Hampden County Radio Association is the top club in the area and with your help I can continue to keep it on top. During the beginning of the club year you will be receiving surveys much like the ones you received last year. In the survey you will find a variety of questions that I would like you to answer to assist the board in selecting the club's future. The survey will contain such topics as your favorite thing in ham radio, what type of banquet you would like, and so on. This is an important aid to see what type of club meetings we will have in the upcoming years.

I would also like to welcome all new members and I will try to make a point to give the opportunity for these members to be introduced at meetings. Tell your friends about the HCRA and please feel free to talk with anyone in the club if you might have any questions. The next meeting of the HCRA will be about this past Field Day and the upcoming January VHF contest. It will be hosted by Bob, NQ1C, and I would like all of you to come and join us.

As for old business, Field Day was a great success!

We had more people attend than in any other year in the past. All who came to Field Day know how much fun we had and no matter what you did at Field Day, it was great to have so much club support. I want to especially thank Yorke, K1BXE, for manning our public relations tent which seemed to be an added plus as many people from the public came to see just what was going on at the High School. Despite 10 and 15 being dead, we scored very high. I hope that everyone who came this year will be back again as everyone had an excellent time.

Well, I hope you all had a good summer and I'll see you at the meeting!

de Stan, KA1ZE

For Sale

2 meter 214B Junior Boomer, as new, \$70; Stacking harness for boomers, \$20; Cushcraft 11 element 2 meter beam, \$15; 6 element, 6 meter beam, \$25; KLM 432 beam, 11 elements (?), \$25; Tektronix model 5110 oscilloscope, \$125; Apple II+ computer, 64K, \$200; Apple Scribe printer, \$100; Amdek color monitor, 20 inch, \$175; Best offer, will trade for VHF/UHF amps, gear. Jeff Duquette, K1BE 786-7856 evenings or weekends, (413) 730-2584 weekdays.

Next VE exam will be September 5th, 7:00pm at the Agawam High School

Next meeting will be September 7th, 8:00pm at the Feeding Hills Congregational Church

Club Officers

President—Stan Hilinski, KA1ZE
Vice President—Jim Sebolt, N1DUY
Treasurer—Greg Stoddard, N1AEH
Secretary/Clerk—John Balboni, AC1T

Board of Directors

Charlie Dunlap, K1II	Bob Cohen, K1CPJ
Larry Lemoine, N1EPE	Fred Stefanik, N1DPM
Steve Nelson, WA1EYF	Frank Potts, NC1I
Cliff Junkins, W1UWX	Scott Cohen, KA1QAS

Articles from this newsletter may be reprinted as long as credit is given to Zero Beat

Advertising in Zero Beat

Zero Beat is proud to announce that three commercial equipment manufacturers will advertise in our newsletter for the 1990-1991 season. I would like to thank Tom Rutland, K3IPW, of Rutland Arrays, Bill Olson, W3HQT/1, of Downeast Microwave, and Jay Rusgrove, W1VD, of Advanced Receiver Research for their cooperation. All three of these small businesses are run by hams for hams. The equipment they produce is second to none. I'm sure that they would like to know that their ad has helped their business so if you decide to order something from these manufactures please let them know that you were informed of their product in Zero Beat. I'm sure if their ads are successful come June we should have some fabulous door prizes at the banquet. Let's get your stuff ready for the January, 1991 VHF Sweepstakes and I'll see you on the air!

de Fred, N1DPM

TIMER STEGSRSENOHPRAEU
AREDLOSSNSTERMINALS GN
FKJSQLP GSCDOGOZEIPWCY
CSOCKETSLRLZPUTWPWTMR
NFSQANORACJOSPLITTERE
PYUKUOROTALUSNIACQOMT
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ARQREDWCYLPUSREWOPOA
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ESRETEMDCERWNEENSOWSC
DQROI AWWNRASCOENIUSAJ
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CAN YOU FIND THESE WORDS ????

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MICROPHONE
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SOLENOIDS
CRYSTALS
RHEOSTAT
TRIMMER
METERS
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PIEZO
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TRANSISTORS
CAPACITORS
RECTIFIERS
REGULATORS
TERMINALS
INSULATOR
SPEAKERS
TOROIDS
SOCKETS
TIMERS
SOLDER
FUSES
CABLE
WIRE

TRANSFORMERS
POWERSUPPLY
ENCLOSURES
OSCILLATOR
EARPHONES
RESISTORS
SPLITTER
BREAKERS
BATTERY
RELAYS
DIODES
KETPAD
KNOBS
FANS
CHIP

Thanks to Gene, N0KGX for this puzzle.

Electrified Field Day

Time: June 23, 1990, 1:55pm EDT. Place: A boxtruck located in the middle of the Agawam High School ballfield.

It was just about time to start the Field Day contest. We were standing next to the 75/80 meter station, making sure everything was ready when 2:00 rolled around. A storm was brewing in the distance and one of the topics of discussion was what to do if it became necessary to shut down due to lightning. The 75/80 station had the largest and highest antenna on the field, an extended double-zep for 80 at 90 feet in the air. Basically, lots of wire up high in the sky.

While we were talking, I noticed some hissing-type sounds coming from inside the truck. I was so intent on the conversation that I did not pay much attention to them, figuring it was just the wind blowing some papers around.

I asked Stan, KA1ZE, how to disconnect the antenna, as it was connected to the tuner with ladder-line, which I had never worked with before. Stan pointed to the clips and said "Just disconnect those from the tuner and throw them out of the truck." Fine, nice and easy! I reached over to touch the clips to see what they were like, and ZAP! I got a nice jolt of electricity.

Stan took a pair of pliers and immediately disconnected the ladder-line, and drawing a two inch arc. We took the line and connected it to a groundpost outside, and immediately ran to all the other stations, telling them to shut down and head for cover. Apparently, the air was charged with static electricity from the approaching storm, and a charge had built up on the antenna, just waiting for a good ground.

The storm approached fast, and it rained and blew hard. The only damage was a 15-meter beam which came off the tower. After the storm passed, we repaired the antenna and all stations were on the air in operating the contest by 3:00.

I don't know about you, but I sure hopw this is the closest I ever come to lightning in my lifetime!

de Bob, NQ1C

Proposed Bylaw Changes

We are proposing to add another officer position to the club. The Publication Editor would be an officer position rather than take a spot on the board of directors. We are reprinting the affected areas of the bylaws here, with the proposed changes. You will be asked to vote on this change at the September meeting. The original article 2 from the bylaws is as follows:

Article 2: Officers

§1. At the first and subsequent annual meetings of the Corporation there shall be elected for one year terms by majority vote of Regular Members present thereat, a President, Vice President, Treasurer and Clerk who shall also be and have the powers of Directors and at the first annual meeting there shall likewise be elected four Directors for one and four for two year terms and thereafter four Directors shall be elected for two year terms at each annual meeting.

§2. The President shall preside at all meetings of the Corporation and of the Directors of the Corporation, and in his absence, the Vice President shall preside.

§3. The Treasurer shall receive all monies and other properties due the Corporation and shall disburse the same according to the directions of the Directors. He shall keep accurate books and records of all of his doings, which books and records shall be open to the inspection of any member of the Corporation in good standing at all reasonable times, and he shall perform all other functions normally necessary and required of a Treasurer.

§4. The clerk shall keep records of all meetings of the Corporation and of the Directors of the Corporation, shall maintain a directory of the membership, shall send notices and make other mailings as may be required and necessary, and shall do all other things normally necessary and required of a Secretary or Clerk.

§5. The Directors shall have general charge of all business and activities of the corporation, shall hold such meetings as may be necessary, shall approve all disbursements of the Corporation, shall determine the form of application for membership in the Corporation and reject or approve applicants for membership to meetings of the Corporation, shall fill vacancies occurring in any office of the Corporation, and shall do all other things expedient in carrying out the objects and pur-

poses of the Corporation.

We have altered §1, and changed §5 into §6, creating a new §5. This is what the proposed changed bylaws look like:

Article 2: Officers

§1. At the first and subsequent annual meetings of the Corporation there shall be elected for one year terms by majority vote of Regular Members present thereat, a President, Vice President, Treasurer, Clerk, and Publication Editor who shall also be and have the powers of Directors and at the first annual meeting there shall likewise be elected four Directors for one and four for two year terms and thereafter four Directors shall be elected for two year terms at each annual meeting.

§2. The President shall preside at all meetings of the Corporation and of the Directors of the Corporation, and in his absence, the Vice President shall preside.

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§4. The clerk shall keep records of all meetings of the Corporation and of the Directors of the Corporation, shall maintain a directory of the membership, shall send notices and make other mailings as may be required and necessary, and shall do all other things normally necessary and required of a Secretary or Clerk.

§5. The Publication Editor shall create and maintain all documents intended for general distribution by the Corporation, including but not limited to periodic newsletters, meeting notices, membership applications, and information sheets. The Publication Editor shall perform any other tasks normally associated with this position.

§6. The Directors shall have general charge of all business and activities of the corporation, shall hold such meetings as may be necessary, shall approve all disbursements of the Corporation, shall determine the form of application for membership in the Corporation and reject or approve applicants for membership to meetings of the Corporation, shall fill vacancies occurring in any office of the Corporation, and shall do all other things expedient in carrying out the objects and purposes of the Corporation.

A Short Essay On Packet

Our packet radio BBS has been happily plugging along for the past 18 months or so, and has handled over 43,000 messages since I took it over in February, 1989. However, due to the increasing amount of packet activity, the increasing complexity of the software, and the fact that our current computer is becoming unreliable, the Board has approved a subcommittee to look into upgrading the BBS hardware. One of the possibilities is to solicit a grant or donation from a company. A short essay has been written on the club's activities in packet radio for use in familiarizing non-amateurs to packet, and I thought I would pass it on for you to read. -

de Bob, NQ1C

The Hampden County Radio Association is a non-profit organization comprised of Amateur Radio operators serving the Western Massachusetts and Northern Connecticut areas. We are a general purpose Amateur Radio club supporting HF DXing, VHF weak signal, contesting, National Traffic System, emergency preparedness, and packet radio.

We operate a packet radio bulletin board system that serves approximately 75 users in Western Massachusetts and Northern Connecticut. The system has 3 radio ports and allows up to 8 simultaneous users at one time.

A packet radio bulletin board system handles private messages (user to user messages), NTS messages (an organized system for passing messages similar to telegrams) and bulletins of general interest to the Amateur Radio community. The bulletin board connects to other bulletin board systems to transfer these messages until they reach their final destination. Our bulletin board has the capability to connect to about 50 other such systems throughout New England, New York and New Jersey, and sends and receives approximately three thousand messages per month.

When an emergency occurs (such as the San Francisco earthquake), Amateur Radio operators are called upon to handle Health and Welfare messages as well as other important communications when conventional means of communication do not work.

Packet radio lends itself to this type of communication in several ways. The automated nature of the system allows messages to be transferred from source to destination with a minimum of human effort; When the volume of messages is high, any automation of routine work allows the operators to concentrate on the most important messages. Because packet radio is a digital form of communications with error checking, there is no chance of a message getting accidentally changed along the way due to misunderstanding or operator error.

The Hampden County Radio Association is dedicated to providing a top-notch packet radio service to the Amateur Community. Our bulletin board system is one of the major gateways for messages entering and leaving New England. Almost every bulletin (general interest) message that enters or leaves New England passes through our system. Our system operator (SYSOP) is in good standing with all of the other major bulletin board systems in the Northeast, and they are ready to cooperate fully in case of an emergency. The Hampden County Radio Association has also set up a packet radio bulletin board system during an emergency preparedness drill, called Field Day, which ran on generated power with temporary antenna systems in a temporary installation. This type of activity shows that we are ready and willing to set up a system on the spur of the moment in any location if the need arises for emergency communications.

Amateur radio is relied upon by many groups (civil defense agencies, government agencies, Red Cross, etc.) as a necessity in times of crisis. In the state of Alaska, any Amateur Radio operator is allowed a free automobile registration with his callsign on the license plate. Many other organizations have shown their appreciation for Amateur Radio by equipment donations, exemption from rental fees on antenna tower space, space in newspapers and magazines, and time on television shows. Amateur Radio is a volunteer organization, and by FCC regulation, may not conduct any commercial business or operate for profit.

The Hampden County Radio Association is seeking new computer hardware for its packet radio bulletin board system because the current hardware, an IBM XT clone, is becoming unreliable and does not have the CPU power to handle the progressing packet radio software and the increasing volume of messages.

Calendar of Events

September	5	VE Session
	7	Meeting
	8-9	VHF Contest
	13	Board Meeting
October	3	VE Session
	5	Meeting
	11	Board Meeting
November	2	Auction
	7	VE Session
	8	Board Meeting
December	5	VE Session
	7	Christmas Social
January	2	VE Session
	4	Meeting
	10	Board Meeting
	12-13	VHF Contest
February	1	Meeting
	6	VE Session
	7	Board Meeting
March	1	Meeting
	6	VE Session
	7	Board Meeting
April	3	VE Session
	5	Meeting
	11	Board Meeting
May	1	VE Session
	3	Meeting
	9	Board Meeting
June	5	VE Session
	7	June Banquet
	13	Board Meeting
	29-30	Field Day

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MODEL: F013-146

ELECTRICAL SPECIFICATIONS

Frequency range	1.5-30 MHz
Gain	14 dB
Front to back ratio	> 20 dB
Impedance	50 ohms
Power handling	100 W

Mechanical Specifications

Length	12.0 in.
Width	4.0 in.
Height	1.0 in.
Weight	1.0 lb.

MODEL: F015-236 & F015-237

ELECTRICAL SPECIFICATIONS

Frequency range	1.5-30 MHz
Gain	23 dB
Front to back ratio	> 20 dB
Impedance	50 ohms
Power handling	100 W

Mechanical Specifications

Length	12.0 in.
Width	4.0 in.
Height	1.0 in.
Weight	1.0 lb.

MODEL: F013-432

ELECTRICAL SPECIFICATIONS

Frequency range	1.5-30 MHz
Gain	43 dB
Front to back ratio	> 20 dB
Impedance	50 ohms
Power handling	100 W

Mechanical Specifications

Length	12.0 in.
Width	4.0 in.
Height	1.0 in.
Weight	1.0 lb.

MODEL: F011-448

ELECTRICAL SPECIFICATIONS

Frequency range	1.5-30 MHz
Gain	48 dB
Front to back ratio	> 20 dB
Impedance	50 ohms
Power handling	100 W

Mechanical Specifications

Length	12.0 in.
Width	4.0 in.
Height	1.0 in.
Weight	1.0 lb.

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Receive Only	Freq. Range (MHz)	N.F. (dB)	Gain (dB)	1 dB Comp. (dBm)	Device Type	Price
P28VD	28-30	<1.1	15	0	OGFET	\$29.95
P50VD	50-54	<1.3	15	0	OGFET	\$29.95
P50VDG	50-54	<0.5	24	+12	GaAsFET	\$79.95
P144VD	144-148	<1.5	15	0	OGFET	\$29.95
P144VDA	144-148	<1.0	15	0	OGFET	\$37.95
P144VDG	144-148	<0.5	24	+12	GaAsFET	\$79.95
P220VD	220-225	<1.8	15	0	OGFET	\$29.95
P220VDA	220-225	<1.2	15	0	OGFET	\$37.95
P220VDG	220-225	<0.5	20	+12	GaAsFET	\$79.95
P432VD	420-450	<1.8	15	-20	Biopolar	\$32.95
P432VDA	420-450	<1.1	17	-20	Biopolar	\$49.95
P432VDG	420-450	<0.5	16	+12	GaAsFET	\$79.95

Inline (rf switched)

SP28VD	28-30	<1.2	15	0	OGFET	\$59.95
SP50VD	50-54	<1.4	15	0	OGFET	\$59.95
SP50VDG	50-54	<0.55	24	+12	GaAsFET	\$109.95
SP144VD	144-148	<1.6	15	0	OGFET	\$59.95
SP144VDA	144-148	<1.1	15	0	OGFET	\$67.95
SP144VDG	144-148	<0.55	24	+12	GaAsFET	\$109.95
SP220VD	220-225	<1.9	15	0	OGFET	\$59.95
SP220VDA	220-225	<1.3	15	0	OGFET	\$67.95
SP220VDG	220-225	<0.55	20	+12	GaAsFET	\$109.95
SP432VD	420-450	<1.9	15	-20	Biopolar	\$62.95
SP432VDA	420-450	<1.2	17	-20	Biopolar	\$79.95
SP432VDG	420-450	<0.55	16	+12	GaAsFET	\$109.95

Every preamplifier is precision aligned on ARR's Hewlett Packard HP8570A/HP348A state-of-the-art noise figure meter. RX only preamplifiers are for receive applications only. Inline preamplifiers are rf switched (for use with transceivers) and handle 25 watts transmitter power. Mount inline preamplifiers between transceiver and power amplifier for high power applications. Other amateur, commercial and special preamplifiers available in the 1-1000 MHz range. Please include \$2 shipping in U.S. and Canada. Connecticut residents add 7-1/2% sales tax. C.O.D. orders add \$2. Air mail to foreign countries add 10%. Order your ARR Rx only or inline preamplifier today and start hearing like never before!

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LOOP YAGIS: 902 Mhz 33 element \$89 kit, \$109 assembled and tested. 1296 Mhz 45 element \$89 kit, \$109 assembled and tested. 1296 55 element "Super Looper" \$99 kit, \$124 assembled and tested. 2304 Mhz 45 element \$75 kit, \$89 assembled and tested. Also available: element and hardware kits for above. 2 and 4 w power dividers. Discount on complete arrays. Solid state line power amps, 13VDC: 1296 - 8W in. 35W out \$315, 1W in 20W \$265, 4W in 70W out \$695. GaAsFET preamps: 902 Mhz .8dB \$90, 1296 .8dB NF \$90, 2304 Mhz 1dB max NF \$140. SHF System no-tune transverter kits, w/144 Mhz IF now available for 903 thru 3456. Write or call for complete catalog. DOWN EAST MICH WAVE, Bill Olson, W3HQT, Box 2301, RR-1, Troy Maine 04907. For information and orders telephone (207) 948-3741.

VE Exams

Exams are sponsored by the HCRA on the first Wednesday of each month at 7:00PM *sharp* at the Agawam High School. VE's are also needed. If you are interested in taking an exam or helping give exams, please contact Jeanette WC1O at 786-1463.

Next VE exam will be September 5th at the Agawam High School.

HCRA Meetings

First Friday of each month at
Feeding Hills Congregational Church
Center of Feeding Hills
Intersection of routes 57 & 187
Doors open at 7:30 PM
Meeting starts promptly at 8:00 PM

***50/50 Raffles will
be held at each
meeting to benefit
the upgrade of the
packet bulletin
board system.***

Meeting Minutes Available from AC1T

The HCRA Board of Directors meets once a month, on the Thursday following the meeting. At this meeting, minutes are taken, which are open to any member of the club in good standing. If you are interested in a copy of the minutes, you may obtain one by contacting John Balboni, AC1T.

Local Nets

HCRA 10 Meter Net	Thursday 9:00 PM 28.650
Nutmeg VHF Traffic Net	Daily 9:30 PM 146.28/88
80 Meter Ragchew Net	Tuesday 8:00 PM 3.709 Mhz
WMPN	Daily 6:00 PM 3.937
WMSN	Tuesday & Thursday 7:30 PM 3.713
WMN	Daily 7:00 PM 3.562
WMTN	Monday-Friday 1:00 PM 146.31/91
CPN	Monday-Saturday 6:00 PM 3.965
	Sunday 10:00 AM 3.965
Mt. Tom Information Net	Wednesday 7:30 PM 146.34/94
Mt. Tom Swap Net	Follows Mt. Tom Information Net
Mt. Tom Emergency Net	Sunday 8:45 AM 146.34/94
WMA Tfc Net Cycle 3	Tue, Wed, Thu 4:00 PM 146.34/94
RASON	Daily 9:00 PM 146.13/73
WESCON	Daily 8:30 PM 147.78/18
CN	Daily 7:00 & 10:00 PM 3.640
CSN	Monday-Friday 7:30 PM 3.720
BEARS Traffic Net	Daily 9:15 PM 145.11(-)

Hampden County Radio Association, Inc.
P O Box 482
West Springfield MA 01090-0482
Editor: Bob Lafleur, NQ1C

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